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We Claim

~~Claims~~

1. An electronic control unit, having a component board (3) on the assembly side (4) of which a plurality of electronic modules (10, 11, 12, 13), provided with an electrical control circuit, are disposed, and the electrical control circuit of an electronic module generates at least one control function for controlling a respective operating device disposed outside the control unit, characterized in that for electrically connecting the operating devices to the electronic modules (10, 11, 12, 13), a plurality of connector parts (20, 21, 22) provided with contact elements (50) are disposed separately on the assembly side (4) of the component board (3), and each electronic module is assigned at least one connector part, which is disposed on the component board in the vicinity of this electronic module and is electrically conductively connected to this electronic module via line connections (41) mounted on the component board (3).

2. The electronic control unit of claim 1, characterized in that the connector parts (20, 21, 22) are embodied for receiving a counterpart connector, connected to the connecting lines of the operating devices, which counterpart connectors can be plugged into the connector parts (20, 21, 22) perpendicular to the assembly side (4) of the component board (3).

3. The electronic control unit of claim 2, characterized in that the connector parts (20, 21, 22) are surface-mounted components (SMDs), and that the contact elements (50) of the connector parts are soldered, by their end portions facing toward the assembly side (4) of the component board (3), to the line connections (41) of the component board.

4. The electronic control unit of one of claims 1-3, characterized in that further line connections (42, 43) are provided on the component board, which without the interposition of electrical or electronic components electrically connect at least one contact element (50) of a connector part (20) to another contact element (50) of the same connector part, or to a contact element (50) of a different connector part (21).

5. The electronic control unit of claim 1, characterized in that electric power components (31) are mounted directly on the assembly side (4) of the component board (3) and are electrically connected to at least one electronic module and/or at least one connector part (21) via line connections (44) of the component board.

6. The electronic control unit of claim 1, characterized in that a common power supply unit (33) for all the electronic modules (20, 21, 22) is disposed on the component board (3) and is electrically conductively connected to the electronic

modules (20, 21, 22) and/or connector parts (20, 21, 22) via line connections of the component board.

7. The electronic control unit of claim 1, characterized in that a common signal processing device (32) for all the electronic modules (20, 21, 22) is disposed on the component board (3) and is electrically conductively connected to the electronic modules (10, 11, 12) and/or connector parts (20, 21, 22) via line connections (45) of the component board.

8. The electronic control unit of claim 1, characterized in that relatively large passive components (34) are mounted directly on the assembly side (4) of the component board (3) and are electrically conductively connected to the electronic modules (10, 11, 12) via line connections (46) of the component board.

9. The electronic control unit of claim 1, characterized in that the electrical control circuit of an electronic module (10, 11, 12) includes at least one microprocessor (61) of its own.

10. The electronic control unit of one of the foregoing claims, characterized in that the component board (3) is mounted, by the side (5) remote from the assembly side (4), onto a housing part (2) of the control unit.

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